Drifter Newsletter #12
September 2013

New Designs

While keeping with the standard size and shape, we continue to modify the surface drifter materials to minimize the cost, effort, and plastic. As reported in the last newsletter, the new bamboo-framed “Cassie” is the most eco-friendly of all the surface drifters to date. We have now deployed a few dozen of these and find they do fairly well. A few have failed within a few weeks probably having to due with weak mast extensions or unsecured fittings but, in general, they are nearly as robust as other wooden or plastic models. The most exciting new development, however, is the aluminum-framed “Irina” drifter as pictured below. What makes this new rig so attractive is that it is easier to build, made from materials more easily found at local hardware stores, and does not require much ballast. We use a 1”-diameter aluminum pipe (sections of old ski poles) as our mast extension which is simply inserted and bolted to a 1”-square aluminum pipe mast. We deployed the first prototype on the last day of August and it seemed to be do fine.

We are also excited about the subsurface drogued “Colin” drifters that seem to be holding up as well. Aside from the transmitter affixed to a lobster-buoy surface float, these are also made from materials available at our local hardware store. The drogue is made with series of pop-up leaf bags (with bottoms removed) which is attached to the float with a stainless bridle and tether.

New On-line Construction Manuals

As noted in the last newsletter, we post instructions on building these new drifters at studentdrifters.org. The site includes the full history of the various experiments in design, shopping list for parts, and drop-down menus with step-by-step procedures in building the various options. The description of the new drogue construction is not yet complete. This construction manual site is separate from the main drifter site at http://www.nefsc.noaa.gov/drifter .

New Schools now participating

Since the last newsletter, new schools joining the effort are the U. Connecticut, U. Michigan, Rutgers, Perdue, and the Florida Studies Institute. A total of 85 drifters have been deployed so far in 2013 and, as documented near the bottom of the main drifter page, we expect at least another 30 in the next few months. We are excited this month to have several drifters contributing to the "Gliderpalooza" operations on the east coast. All our drifter tracks are also visible on both MARACOOS and NERACOOS websites.

Animal Tracking Update

While we have further developed the submersible tracker, we have yet to attach one to an actual animal. Some have been in the hands of various biologist but none have been secured to any animals as we had hope this summer. Part of the issue is just getting permits to do so.

Unmanned Sailboat Tracking

If you click on the "tracks for the last 7 days" on the main drifter site, you will see that we are now tracking the unmanned sailboats as released by various schools participating with the "Educational Passages" group. They have formed a non-profit and are enthusiastically involved in engaging more schools. A few of these boats are out in the middle of the Atlantic now and several more will be deployed this fall.

Refurbishing and/or Decommissioning Trackpacks

We now have a reliable source of professionally-built battery packs that can be swapped for tired ones. We had tried to make our own in the past but were never sure of our workmanship. So, if you have any old transmitters that are not responding to the dongle, please send them in to be checked out. Also, please let us know if you have any transmitters in your possession that you do not plan on using soon. The service providers charge us $2.35/mth unless we "decommission" them.

Drifter Building Workshops

We are planning to convene several high schools in the spring of 2014 in New Hampshire or Southern Maine to build drifters. While this event will be sponsored by the Gulf of Maine Marine Educators Associations, we hope to have several other smaller events next year in Woods Hole.